

## CLAIMS

What is claimed is:

1. A suspension system for a vehicle, comprising:
  - a frequency dependent damper defining a first pressurized working chamber;
  - an air spring assembly defining a second pressurized working chamber;
  - and
  - a booster enabling pressure communication between said first pressurized working chamber and said second pressurized working chamber, said booster including a resilient member that effects booster performance.
2. The suspension system of claim 1 wherein said booster comprises:
  - a housing defining segmented chambers; and
  - a piston assembly slidably disposed within said segmented chambers.
3. The suspension system of claim 2 wherein said piston assembly comprises:
  - a first piston dividing a first segmented chamber and a second segmented chamber; and
  - a second piston interconnected with said first piston and dividing said second segmented chamber and a third segmented chamber.

4. The suspension system of claim 3 wherein said first segmented chamber is in fluid communication with said second pressurized working chamber and said third working chamber is in fluid communication with said first pressurized working chamber.
5. The suspension system of claim 4 wherein said first piston is of a larger diameter than said second piston.
6. The suspension system of claim 3 wherein said resilient member biases said first piston.
7. The suspension system of claim 1 further comprising a restrictor disposed between said air spring assembly and said booster to inhibit pressurized fluid flow therebetween.
8. The suspension system of claim 1 wherein said booster comprises:  
a housing defining a chamber; and  
a piston slidably disposed within said chamber to define segmented chambers.
9. The suspension system of claim 8 wherein said resilient member biases said piston.

10. A suspension system disposed between a sprung portion and an unsprung portion of a vehicle, comprising:

a frequency dependent damper defining a first pressurized working chamber;

an air spring assembly integrated with said shock absorber and defining a second pressurized working chamber; and

a booster enabling pressure communication between said first pressurized working chamber and said second pressurized working chamber, said booster including a resilient member that effects booster performance.

11. The suspension system of claim 9 wherein said booster comprises:

a housing defining segmented chambers; and

a piston assembly slidably disposed within said segmented chambers.

12. The suspension system of claim 11 wherein said piston assembly comprises:

a first piston dividing a first segmented chamber and a second segmented chamber; and

a second piston interconnected with said first piston and dividing said second segmented chamber and a third segmented chamber.

13. The suspension system of claim 12 wherein said first segmented chamber is in fluid communication with said second pressurized working chamber and said

third working chamber is in fluid communication with said first pressurized working chamber.

14. The suspension system of claim 13 wherein said first piston is of a larger diameter than said second piston.

15. The suspension system of claim 12 wherein said resilient member biases said first piston.

16. The suspension system of claim 9 further comprising a restrictor disposed between said air spring assembly and said booster to inhibit pressurized fluid flow therebetween.

17. The suspension system of claim 9 wherein said booster comprises:  
a housing defining a chamber; and  
a piston slidably disposed within said chamber to define segmented chambers.

18. The suspension system of claim 17 wherein said resilient member biases said piston.

19. A vehicle, comprising:
- a sprung component;
  - an unsprung component; and
  - a suspension system disposed between said sprung portion and said unsprung portion, said suspension system comprising:
    - a frequency dependent damper defining a first pressurized working chamber;
    - an air spring assembly defining a second pressurized working chamber; and
    - a booster enabling pressure communication between said first pressurized working chamber and said second pressurized working chamber, said booster including a resilient member that effects booster performance.
20. The vehicle of claim 19 wherein said booster comprises:
- a housing defining segmented chambers; and
  - a piston assembly slidably disposed within said segmented chambers.
21. The vehicle of claim 19 wherein said piston assembly comprises:
- a first piston dividing a first segmented chamber and a second segmented chamber; and
  - a second piston interconnected with said first piston and dividing said second segmented chamber and a third segmented chamber.

22. The vehicle of claim 21 wherein said first segmented chamber is in fluid communication with said second pressurized working chamber and said third segmented chamber is in fluid communication with said first pressurized working chamber.
23. The vehicle of claim 22 wherein said first piston is of a large diameter than said second piston.
24. The vehicle of claim 21 wherein said resilient member biases said first piston.
25. The vehicle of claim 19 further comprising a restrictor disposed between said air spring assembly and said booster to inhibit pressurized fluid flow therebetween.
26. The vehicle of claim 19 wherein said booster comprises:  
a housing defining a chamber; and  
a piston slidably disposed within said chamber to define segmented chambers.
27. The vehicle of claim 26 wherein said resilient member biases said piston.

28. The vehicle of claim 19 wherein said frequency dependent damper and said air spring assembly comprise an integrated shock assembly.